

### ABSTRACT

The wiring structure of a semiconductor device of the invention enhances the dielectric strength of the wirings and reduces the capacitance across the wirings, by preventing a diffusion of the wiring material. The wiring structure includes a first insulating film, plural wiring films, plural barrier films, and plural cap films. The first insulating film has plural grooves formed thereon, and has an interface in the horizontal direction between the adjoining grooves. The wiring films are formed to protrude from the interface each by the grooves of the first insulating film. The barrier films are formed on the bottoms of the wiring films, and also on side faces of the wiring films to a height exceeding the interface. The cap films are formed at least on the upper faces of the wiring films, and are separated each by the grooves.